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AUTHOR Barkat, Esther U.; Lee, Jeanette W.
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ABSTRACT

This report discusses the outcomes of a study that used qualitative data to examine the concept of attention deficit disorders from an international perspective. Surveys were conducted in two different parts of the world (West Virginia and Pakistan) among elementary school teachers. Seventy-two Pakistani school teachers and 149 American school teachers were surveyed. Findings showed a significant difference in percentages of students who are perceived as having attention deficit disorder or attention deficit hyperactivity disorder (AD/HD) traits. Students from the United States were more likely to be identified as having AD/HD symptoms than Pakistani students. Methods of responding to such children in the classroom included similar responses and also some reactions which were unique to each culture. Ideas concerning causes for the behavior patterns were also given. Educators from both cultures cited multiple and similar reasons for AD/HD, with parenting practices being a recurring theme. Results of the study suggest environmental factors which may be contributing to the severity of attention deficit disorders. The paper concludes with a discussion of future research needs. (Contains 20 references.) (CR)

Attention Deficit Hyperactivity Disorders - A Cross-Cultural Investigation

Esther U. Barkat, Ed. D., Gallia County Local School District
Jeanette W. Lee, Ph.D., West Virginia State College

Abstract

This study used qualitative data to examine the concept of attention deficit disorders from an international perspective. Surveys were conducted in two different parts of the world (West Virginia and Pakistan) among elementary teachers. Findings showed a significant difference in percentages of students who are perceived as having ADD or AD/HD traits. Methods of responding to such children in the classroom included similar responses, and also some reactions which were unique to each culture. Ideas concerning causes for the behavior patterns were given.

Educators from both cultures cited multiple and similar reasons, with points of divergence found in the most-quoted thoughts of origin. Results of the study suggest environmental factors which may be contributing to the severity of ADD/AD/HD. Future research is warranted in exploring alternate methods of interventions in the educational setting.

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About the Authors

Esther U. Barkat (Ed. D., West Virginia University) is a practicing school psychologist who has taught youngsters, and also child development and educational psychology courses in various colleges and universities. Her primary role as school psychologist is testing and evaluating students for special education placement, and consulting with teachers, administrators, counselors, parents, and local agencies serving children. Dr. Barkat's research interests include child-parent interactions, attention deficit hyperactivity disorders, and adolescent issues.

Jeanette W. Lee (Ph.D., The Ohio State University) is a professor at West Virginia State College, and the chair of the Department of Education. Her primary role is instructing prospective teachers of children with exceptionalities. Professor Lee has been a classroom teacher of children with specific learning disabilities, behavior disorders, and mental impairments. Her major research interests include interventions for academic and social skills growth in learners with special needs.

Attention Deficit Hyperactivity Disorder: A Cross-Culture Investigation

According to current literature, Attention Deficit Hyperactivity Disorder(AD/HD) is one of the most widely studied childhood disorders in the United States. The number of children and adolescents affected by AD/HD in the United States probably ranges from 1.4 to 2.2 million. Boys significantly out- number girls. Over the past three decades, this phenomenon has become the subject of increased attention from parents, professionals, and policy makers across the country. Some scientists propose that there has been increase in numbers of reported cases, due to the increase in familiarity with the disorder (Hinshaw, 1994). They also speculate that AD/HD children in school seem to have harder times coping because they are expected to behave and sit for long periods of times in an environment that not necessarily stimulating enough for them.

What is AD/HD?

AD/HD is very complex and often misunderstood condition. Symptoms sometime differ from individual to individual, and not all healthcare professionals distinguish between types of AD/HD in the same manner. The main characteristics of AD/HD are age inappropriate levels of inattention, hyperactivity, impulsivity, and activity level modulation. Children with AD/HD frequently exhibit defiance, aggression, and other anti social behavior. These characteristics often lead to children having major difficulties with achievement in school, regardless of the fact that they might not display formal learning disabilities. These types of anti social behavior can lead to problems at home, as well as in school, and may inhibit the child's ability to form

relationship with peers as well as caregivers. In order to identify AD/HD, the following types are more commonly used by the professionals. AD/HD Primarily Inattentive Type (AD/HD-I) - These people are very distractible, but not very hyperactive or impulsive. Girls are often diagnosed with this type of AD/HD. AD/HD Primarily Hyperactive-Impulsive Type (AD/HD - HI) - These people are hyperactive and impulsive, but inattentiveness is not the primary problem. This type of AD/HD is found in young children. AD/HD Combined Type (AD/HD -C) - Persons with this type are distractible, hyper, impulsive. Most people have this type of AD/HD.

What are the Causes?

It is said that there probably is not one etiology for this problem. Some say that it can be caused by genetic abnormalities, birth injuries, endocrine abnormalities, emotional problems, biochemical disturbances, toxins, enzyme defects, stresses in life, or previous infections. A literature review indicates that there are two schools of thought that have evolved through research on AD/HD: the biological determinist and the social constructionist theories. Proponents of the biological determinist view maintain that AD/HD is a result of a biological/physiological predisposition. It is suggested that this disorder is inherited passed down from one generation to the next. Supporting the genetic link theory, Barkley (1995) says that approximately 40 percent of all youngsters with ADD have at least one parent who has the condition. In support of this theory, one may note that medications such as Ritalin, which affects neurotransmitters in the central nervous system, reduces symptoms of ADD. Additionally, the absorption of glucose in the brains of adults with AD/HD is lower than in adults without AD/HD. This indicates underactivity or under arousal in the brain (Dandy, 1995). Many present

day scientists speculate that ADD and AD/HD are neurobehavioral condition with biological causes(e.g., Booth 1988). Booth believes that AD/HD is real disability which is not due to lack of motivation nor self control. It is caused by a chemical imbalance in the brain which affects the way the brain manages neurotransmitter production, storage, or flow. In people with AD/HD, part of brain is not as active in these areas, since glucose is the fuel neurons use when they are active. Ninety five percent of people with AD/HD benefit from psycho stimulants which have been used since the 1940's as a treatment option (Booth, 1988; , 1999). The psycho stimulant most commonly used in treatment of AD/HD is Ritalin. The primary behavior changes after taking Ritalin is increased control of behavior, compliance, less aggression and less disruption (Fisher, 1998). This appears to help children to stay out of trouble, get along with others, and behave in a way that is socially acceptable. It is also speculated by the researchers that Ritalin has helped children with increased attention span, impulse control, academic performance, and improved peer relationships (Fisher, 1998)

In contrast, social constructionists argue that AD/HD is a consequence of environmental and societal influences. In this view, societal and cultural forces may be related to the problem of hyperactivity in both primary (causal) and secondary (amplifying) manner. Ross and Ross (1982) contend that hyperactivity is to some extent culture-bound. They suggest that in contemporary society, cultures and subcultures differ in respect to the consistency of basic tenets across institutions (e.g., home, school, church, mass media, and major organizations), with some cultures having marked consistency across institutions and others being notable for their inconsistency. They further suggest that cultures characterized by high consistency tend to be high on group cohesiveness, emphasize group achievement (while still being responsive to

individual efforts), and require conformity to the groups. Children and adolescents in these cultures tend to receive highly similar messages from socialization agents across institutions and usually these messages are further reinforced by a cohesive within-culture peer group. In contrast to consistent cultures, inconsistent cultures tend to maximize individual differences, emphasize individual achievement, and segregate individuals from the earliest years on the basis of achievement, socioeconomic status, religion, and other attributes. Children often receive quite contradictory messages from socialization agents in the home, school, church, mass media, and peer groups (Ross and Ross, 1982).

Willis & Lovass (1977) claimed that mothers intolerant of negative or hyperactive temperament in their infants react with excessively negative parental responses, and give rise to clinical levels of hyperactivity. In 1977, Bock, Willis and Lovass claimed that hyperactive behavior is the result of poor stimulus control, but believed that this poor regulation of behavior was due to poor parental management of the children. This theory appears to get support from the studies indicating that parental management is an important factor in preventing the persistence of AD/HD. Campbell (1987) also proposed that negative mother-child interactions in the preschool years are associated with the continuation of hyperactivity into late childhood. If a child is somewhat more active than others, he believes that the mother's negative reactions and negative child rearing practices can perpetuate the problem of AD/HD.

Barkley (1995) suggests that how parents respond to and manage a child may contribute to the persistence of AD/HD. This is not to say that parents cause AD/HD but it means that once the symptoms of AD/HD have developed, how severe they may become and how much they persist is partly related to how parents manage the children. In giving preference to the

biological factors of AD/HD, Barkley maintains that parents' management skills can put children in risk of severe and persistent forms of AD/HD. Poor management skills can lead to more aggressive and defiant behavior.

Thomas Armstrong, the author of the controversial book The Myth of the ADD Child, suggests that ADD problems lie less with the children diagnosed than with the society and schools that have done such labeling. In his article "ADD As a Social Invention" Armstrong quoted many studies and reason suggesting that there is a strong possibility that ADD has social roots. He wrote in his article that "the several studies have revealed that up to 80 percent of the time, ADD cannot be identified in the physician's office, presumably because the one -to-one social context with a (frequent) male authority figure mediates against the occurrence of symptoms. In another study, trained clinicians from different countries were shown tapes of children and asked to diagnose them. In a country with stricter behavioral norms - for example, China - there was a greater likelihood of an ADD diagnosis than in a country such as the United States. On the other hand, in some countries, such as England, a diagnosis of hyperactivity is much less likely." He raises questions about some of the underlying social influences that may have served to shape the inclusion of ADD as a disorder in our culture. After admitting that answer to this question is not easy, he suggested a few social influences which may be contributing factors. According to him, ADD may be a result of changing values, a rush to label children, and a rise of electronic media (Nintendo, the Internet, MTV, multimedia and more). He suggested that kids live in a fast lane and it may be difficult for them to sit in a traditional classroom environment for long periods of time, listen to monotone lectures, and pore over textbook and worksheet material that bear little resemblance to real life. He reported that studies

show that children labeled ADD do poorly in environments that are boring and repetitive, externally controlled, lack immediate feedback, or are presided over by a familiar, maternal-like authority. In other words, the typical back to the basics classrooms might be producing more children with ADD because that is not real life in today's society. Real life is fast paced. He says that traditional type of classroom is deadly not only for ADD children but for all kids.

In another perspective, Bonnie Carmond, an educational psychologist at the University of Georgia, contends that ADD and creativity is the same thing. She says that it is a matter of how behaviors are interpreted. She equates specific ADD symptoms with creative traits. According to her assessment, inattentiveness is equal to imaginative preoccupation and hyperactivity may be overflowing energy.

Although much research has been conducted to uncover the causes of AD/HD, Barkley calls all conclusions regarding AD/HD "orphan findings" because they have no parent theory to support them. There is no definitive consensus about the causes of ADD or AD/HD.

The purpose of this study is to:

Although several studies have been published regarding AD/HD, there is very little literature published that discusses how it is perceived and responded to in other cultures. Given the absence of literature on this topic, this study attempts to examine a largely unexplored dimension of the topic. The purpose of this study therefore is to:

1. Determine if teachers from another country identify students with attention deficit traits with similar rates of frequency as teachers in America .
2. Ascertain how children are managed by teachers from both cultures.

3. Determine the causes of ADD/AD/HD as perceived by teachers in America and teachers in Pakistan.

Hypothesis of the study:

1. Children will be identified as having AD/HD or ADD traits in greater percentages by teachers in the United States than by those in Pakistan.
2. Teachers from the two countries will cite different concepts regarding the management of children with ADD/AD/HD characteristics.
3. Teachers from the two countries will cite different concepts regarding the causes of ADD/AD/HD.

The researchers of this study hold that AD/HD may have a biological base but its persistence and severity is definitely linked to societal and cultural factors. Each child develops within a complex system of relationships affected by multilevels of environment --- from immediate settings of family and school to broad cultural values and programs. Social interactions are important in child development, and how we raise our families has a lot to do with how our children behave. Children occupy specific places within a social network or system, the most significant of these being the most immediate one--- the family. Here, ideally, the child should be reared, managed, taken care of, and loved. It is assumed that cultural effects on hyperactivity have more to do with whether important institutions of enculturation are consistent or inconsistent in the demands made and standards set for child behavior and development. A "consistent culture" should produce less children who exhibit hyperactive and/or attention deficit behavior than a culture which has expectations of childrens' behavior which may likely

vary from parent to parent, teacher to teacher, home to school, etc. In order to support these assumptions, the crosscultural investigation was conducted in two settings: Lahore District, Pakistan and Kanawha County, West Virginia, U.S.A.

METHODOLOGY

PAKISTAN:

Subjects

Some data was initially collected by interviewing 35 school teachers, 1 college professor and 10 administrators. Additional data was collected by sending surveys to 100 elementary and high school teachers. Classroom observations were made in Pakistan, where face-to-face interviews were conducted with a number of teachers and administrators .

Participants were from private as well as from the public school system in Pakistan. School teachers were selected from urban, rural, and suburban areas. The educational levels of these participants ranged from those having an associate degree to others with a master's level education. Some teachers were trained in government institutions and others were trained on the job. Teaching experience ranged from one year to 25 years.

The administrators known by the researcher were the sources for locating other subjects. In order to recruit them, the teachers were contacted by the administrators and professors of a local college.

Social Structure:

Initial data was collected in Gujranwala, Pakistan. Gujranwala is located in Punjab

which is the largest province of Pakistan. It is located in South Asia, bordering the Arabian Sea, between India and Iran. Pakistan is a nation of small towns and rural areas, where children grow up in predictable environments. Their surroundings are populated by familiar adults-- parents, relatives, neighbors, religious leaders, and other authority figures who speak a common language about expected behavior. Pakistani social life revolves around family and kin. Even among members of the most westernized elite, family retains its overarching significance. The family is the basis of social organization, providing its members with both identity and protection (Weiss, 1995). The household is the primary kinship unit. In its ideal, or extended form, it includes a married couple, their sons, their sons' wives and children, and unmarried offspring (Weiss, 1995). This fundamental unit, called family, provides the individual with models for later interpersonal relationships, teaches him/her the duties and privileges associated with his/her social status, instills the values and behavior patterns which makes him/her a predictable member of society, gives religious training, and prepares him/her for a life trade or profession. The extended family is the most common family unit. It is reinforced by religion and custom (Wilber, 1964). Nasir, a retired army major, an educator and school owner, reported that things have not changed much in Pakistan since the 1960s. Family is still a fundamental unit in Pakistan. At home, children are expected to respect everyone who is older, even older brothers and sisters. If parents in the course of disciplining spank their children, it is not considered "child abuse". The Pakistani languages contain different terms for each kind of relative on both sides of the family for about three or four generations. The relations other than kin are also commonly phrased in either kinship terms or with sir names. Children as well as adults are considered disrespectful if they call their elders by their first names. It is Mr., Mrs.,

Miss, Aunt or Uncle to precede a given name. Structure in the home and in the classroom is considered an important part of teaching and childrearing. Children learn to obey their parents in all circumstances of life, including in marriage decisions.

The lineage group is known by a variety of names in different areas, the most common being baradari, or brotherhood. Its size and exact composition varies, but in general, it includes all persons related by blood through the male line for about five or six generations back. Its members neither hold moveable property in common nor share earnings, but the honor or shame of individual members affects the general standing of the baradari within the community (Weiss, 1995). Childrearing is the responsibility of every one in the family and as well as in the biradari. Members of a biradari celebrate major life events together and have traditionally served as a combined mutual aid society and welfare agency, arranging loans to members, assisting in finding employment, and contributing to the dowries of poorer families.

Children are encouraged to develop self-control because in many cases they have to wait on things and they have to earn a living. The majority of people belong to middle or poor socioeconomic classes. It is not uncommon to find children as young as ten working outside the home to help their parents bring in groceries.

Educational Structure and System:

Education is organized into five levels: primary (grades one through five); middle (grades six through eight); high (grades nine and ten, culminating in matriculation); intermediate (grades eleven and twelve, leading to an F.A. diploma in arts or an F.S. in science); and university programs leading to under-graduate and advanced degrees. Preparatory classes (Kachi, or nursery) were formally incorporated into the system in 1988 with the Seventh Five-year Plan

(Weiss, 1995).

Primary education is free, but 44% (1986) of all children attend primary school, and only 18% attend secondary schools. Most government educational facilities are overcrowded and some, especially in rural areas, are poorly equipped. Age of entry to formal school is 5+ but children aged 3 or 4 years often accompany their older brothers and sisters to school and sit quietly with them in the classrooms (Warweck and Jatoi, 1994). In 1991 there were 87,545 primary schools, 189,200 primary school teachers, and 7,768,000 students enrolled at the primary level, with a student-to-teacher ratio of forty-one to one. There are 11,978 secondary schools, 154,802 secondary school teachers, and 2,995, 000 students enrolled at the secondary level, with a student-teacher ratio of nineteen to one (Weiss, 1995.) Private schools play a significant role in education in Pakistan. There are large numbers of private schools. In Punjab alone there are 1033 of them with an enrollment of about 33,000 children (Nanayakkara and Gardezi,1995). Most of the teachers in the public school are trained at government institutions. Public sector schools hire only graduates of government institutions. Private schools, however, prefer to get graduates of liberal arts programs and train them on the job.

United States Of America

The second set of data was collected in Kanawha County, West Virginia. West Virginia is one of the South Atlantic states of the United States, bordered on the north by Ohio and Pennsylvania, on the northeast by Maryland, on the east and south by Virginia, and on the west by Kentucky and Ohio. West Virginia is one of the least urbanized states in the U.S.; in 1990 about 36% of all West Virginians lived in areas defined as urban, and the rest lived in rural areas (Microsoft Encarta, 95).

It appears that like Punjab, West Virginia is a state of small towns and rural areas, where children's surroundings are also populated by familiar adults - parents, relatives, neighbors, religious leaders, and other authority figures.

Social Structure

West Virginia has persons from all walks of life, but generally is considered a poor state. In 1992, the median income of families with children was greater than \$9,000 below the national average (1995 Kids Count Data Book). The percent of children in poor and near-poor families (income below 150% of the poverty level) was 40.3% compared to the national average of 31.5%. In its ideal form, the household is the primary kinship unit. It includes a married couple, their sons and daughters. According to the 1990 census, 77.3 percent of the families in West Virginia consisted of this traditional family unit. This compares favorably with the national figure of 74.7 families having all its primary members. Additionally, 13.7% of West Virginia families with children are constituted as mother-headed (no adult male), comparing favorably with a 15.8% figure nationally.

Childrearing in West Virginia follows the national patterns. Maccoby (1980) identified three basic types of parenting styles observed in the United States. Authoritarian style parents value obedience, respect for authority, work, tradition, and the preservation of order. These parents generally discourage verbal give and take with their children. Unquestioning responses to commands are expected of children. Another parenting style is labelled "authoritative." Parents fitting this classification are likely to encourage verbal give and take, and to explain reasons behind the rules and discipline. Children are expected to conform to adult requirements,

but are also encouraged to be independent and self-directing. The final major style is classified as "permissive." These parents use little punishment. They behave in an accepting way towards the child's impulses and desires. They make few demands for order or household responsibilities. Since these three styles predominate American society, one would call the culture inconsistent. One style does not characterize the entire society. Additionally, different units have different expectations of behavior. Schools, extended family members, and other social agencies hold varying philosophies about best childrearing practices.

Education

Education in West Virginia before statehood in 1863 was largely provided under private, especially religious, auspices. The state established a public school system soon after joining the Union. In the late 1980s, West Virginia had 1035 public schools. Annual enrollment included about 227,250 elementary pupils and 100,000 secondary students. In addition, about 13,000 students attended private schools.

Kanawha County, which contains the capital city of the state of West Virginia, is also the largest of its fifty-five counties. According to the 1995-96 West Virginia Statistical Abstract, approximately 31,000 students are enrolled in its 87 public schools. The public county system has 63 elementary schools, one community school (elementary and junior high combination), 15 junior high schools, and 9 senior high schools. The average class size is 22.1, and the typical teacher has 15.7 years of experience, and 15 hours beyond the Bachelor's degree.

In order to teach in public schools, teachers need to have a teacher's certification issued by the West Virginia Board of Education. Teachers receive their training in accredited colleges or universities. The private school system, however, is open to teachers without certification.

PROCEDURES:

Two sets of data were collected. A preliminary set was collected during the summer of 1996 and second set of data was collected in Spring of 1998. Initial data was collected by conducting interviews and classroom observations in Pakistan. The second set of data was collected in America and Pakistan. Surveys were completed by teachers of both countries. Additionally, visitation was made in Pakistan where teachers were interviewed, and selected classrooms were observed. In these classroom were Pakistani students who were identified by their teachers as having behavioral problems.

SURVEY:

The two part survey was developed by using DSM IV criteria as a guide. The first section dealt with DSM IV criteria (characteristic behaviors associated with ADD/ADHD) and the second section of the survey consisted of 6 open-ended questions. The questions tapped the respondent's ideas regarding their understanding of the subject, how they treat such children, if referrals are made for formal testing, how and if they would they label children exhibiting ADHD like behaviors, perceived causes of ADHD, and what type of training they have to deal with ADHD. The survey was composed in English, and then translated into the Urdu language for Pakistani teachers and administrators. In Pakistan the surveys were hand delivered to the teachers and the administrators of public and private schools. In the USA, the surveys were mailed to public elementary school teachers.

OBSERVATIONS

The observational data was collected using a checklist. The checklist included all items listed in the DSM IV criteria for ADHD. Each item was coded with upper case alphabets. Children to be observed were identified by their teachers as having ADHD symptoms.

INTERVIEWS:

After describing the purpose of the study, one researcher asked questions during face-to-face sessions. Each teacher was asked if he/she knew what ADHD is. If unfamiliar with the term, the interviewee was given brief descriptions of characteristics of ADHD. After describing ADHD, each participant was asked how they handle children with ADHD; Do they refer these children for any type of psychological testing?; Do they label these children with any type of disorder?; What do they think are the causes and treatments of ADHD-like behaviors?

RESULTS

The basic purpose of the present study, which influences both the design and analysis, was to examine the similarities and differences in the understanding of ADHD and its treatment in two different cultures (USA and Pakistan). The results are thus presented separately for both countries.

Pakistan

Data Collection

Initial data was collected by interviewing 35 Pakistani school teachers, 1 college professor and 10 administrators and by observing students in classroom. The second set of data was collected by distributing surveys to Pakistani teachers, interviewing teachers, and making observations in the schools.

Types of Schools

The survey respondents in Pakistan were employed by public and private elementary and middle schools.

Respondents

Out of 100 surveys sent to Pakistani teachers, 75 were returned. Of these, seven were incomplete. The majority of respondents were female (90%). The males who participated had teaching experience which ranged from a low of 2 years to a high of 10 years, while that for the females ranged from 1 to 26 years. The average number of years for all teachers was 11.9 years.

School Setting

Seventy-five percent of the teachers from Pakistan reported that they worked in urban communities. The remaining 25% taught in rural school districts.

Typical Class Size

The smallest class enrollment for private schools was 22 and the largest was 64. For public schools, the smallest class enrollment was 64 and largest was 90. The total student body in private schools whose teachers completed the surveys was 467. Total public school student body whose teachers responded to surveys was 2,660.

Answers to Survey

The following information restates the questions of the survey, and presents a summary of the responses.

Q# 1 - On the average, how many children in your classroom exhibit the following behaviors?

The average percent of Pakistani children reported to exhibited inattentive behaviors in public schools was 18% and in private schools was 16%. The average percentage of children who were considered hyperactive in private Pakistani schools was 16% and in public schools was 18%.

Q # 2 - How do you handle (treat) children who exhibit behavior mentioned in question # 1

The majority of the respondents put emphasis on teaching style, teachers' attitude, classroom management, and classroom environment. These are presented in categories for examination, in descending order by quantity.

Teaching Style

Most of the respondents said that teaching style is very important in order to handle children with ADHD like behaviors. Teachers wrote that they would look for strengths and nurture them. They will allow students to work in groups. The students who finish their work early would be given extra work to keep them occupied. If children are having difficulty completing a task, teachers reported that they would explain the task more clearly and help them in solving problems. Making subject matter more interesting was considered one way of getting children's attention. They also wrote that they would try to engage active children in activities where they could move freely (for example, collecting homework, helping the teacher to monitor the class, and assigning daily duties). They would involve inattentive students by asking questions regarding the subject matter, and also by nonverbal communication.

Teacher's Attitude

Teachers' attitude was considered another very important aspect in regard to handling ADHD children. The majority of respondents said that the children should be treated with love and patience. Paying more attention to children with ADHD was also mentioned by several. The reason was given that children with ADHD are lacking attention and love at home. "If we want

these children to behave in (the) classroom, we need to give them attention and love," was a frequent response. A friendly relationship was considered an important aspect of the teachers' attitude. It was self reported that children were treated as friends but also with firmness and with assertiveness.

Classroom Management

Several respondents wrote that they made sure that children were clear about the rules of the classroom. Children are taught the rules and procedures of the classroom and they are expected to obey those rules. Rules are repeated in the classroom at least once a week. They try to supervise children's activities with love and firmness. They ignore minor misbehaviors and praise good behaviors. Children have responsibilities in the classroom.

Punishment

One respondent wrote that he still uses physical punishment. He said that first he advised children to behave properly and if they didn't listen he punished them. Another person wrote that she either sends her students to the principal's office or makes them stand outside the classroom so they would not disturb rest of the class.

One science teacher in a local public school reported that his problems being a government employee is that in his classes he has fifty to sixty students, mostly from lower class families. His method of disciplining children or overcoming behavioral problems is by having a stick on his table. He wrote that only the fear of the stick sometimes prevented many severe behavioral problems.

Q# 3 - Do you refer these children for any type of testing by a psychologist?

97% of respondents wrote they would not refer any student for psychological testing. One wrote that such resources are not available in the school system.

Q # 4 - How would you label a child who would demonstrate these behaviors on a regular basis?

In Pakistan, school children exhibiting ADHD like behavior are labeled as restless, inattentive, talkative, mischievous, smart, lazy, hyper, attention seeker, careless, or playful. None used the term ADD or ADHD.

Q # 5 - Are you familiar with the term Attention Deficit Hyperactivity Disorders(ADHD)?

Out of 72 respondents, 49 wrote that they were not familiar with the term. Fifteen wrote yes and eight indicated that they were "somewhat familiar" with the term.

Q # 6 - How much knowledge do have about Attention Deficit Hyperactivity Disorders (ADHD)?

87% of the respondents in Pakistan wrote that they do not have any knowledge about "ADHD."

Q # 7- Have you received any training to handle children with Attention Deficit Hyperactivity Disorders (ADHD)?

Ninety-three percent of the respondents did not have any type of training to handle children with ADHD.

Q # 8 - What do think is the cause or source of Attention Deficit Hyperactivity Disorders (ADHD)?

This final question elicited a host of responses. Several tried to explain their point of view in depth. These are presented in categories for examination, in descending order by quantity.

Parenting/Home Environment

Most of the respondents considered child's home environment and parenting as the major cause for behavior problems. The home factors contributing to ADHD- like behavior mentioned by the respondents include parents' conflict, separation, divorce, two parents working, busy parents, abusive parents, critical parents, uninvolved parents, parents who don't pay attention to children's needs, and parents who neglect their children.

Child Characteristics

Some respondents wrote that ADHD like behavior are due to the child's own personality characteristics. Children characteristics mentioned were attention seeking behavior, quick workers, and creative students.

Teachers

Some blamed teachers for the children's behavior. They said that boring lessons cause inattentiveness and hyperactivity. Poor attitudes of the teacher toward a student and harsh dictatorship cause other children to misbehave.

Socioeconomic Status

Respondents suggested that children from rich families cause more problems in schools than children of poor families.

Cultural and Environmental Influences

Some respondents wrote that changing culture is causing children to be less responsible and more out of control.

Media

Two percent considered the media responsible for the children's changing behaviors.

Genetics

Two percent wrote that genetics may be the cause of ADHD.

OBSERVATION

The classroom observations were done in private schools. All public schools were closed due to final exams. Public school teachers, however, were working. The student body of these private schools ranged from 24 to 94. A similar size of classroom was reported by the public school teachers. Many of the private schools are just like public schools in Pakistan. The major difference is that in some private schools you may pay higher fee. Very few private schools select their students according to a set standard and considered to top class schools.

The classroom observations were conducted after the interview sessions with teachers and administrators. In both private and public schools, the usual daily school schedule began with an assembly where morning prayers were offered and the national Anthem was sung. After the announcements for the day were given, the students went to their respective classes with their teachers. The students were observed in those classrooms where some students were identified by the teachers as having ADHD. During the observation, no significant behavioral problems observed which can be considered ADHD behaviors. Inattentiveness, however, was difficult to observe in the short period of time.

INTERVIEWS

Each Pakistani interviewee said that first of all, the Pakistani society demands that children should behave according to the norms of Pakistani culture. Parents are the authority in the house. In schools, teacher still are in authority. Where there is inconsistency and lack of structure, more and more children are being diagnosed with behavioral problems. Therefore, the Pakistani culture tries to provide a more structured environment, pay more attention to the one who is experiencing problems, contact parents, train parents, and have parent teacher conferences.

All interviewees in Pakistan reported that they had observed behavior patterns in their classroom which they considered identical to ADHD. They all called these problems behavioral problems rather than ADHD.

Every one agreed that the majority of parents are not aware of this childhood disorder and neither do they care to know. It was reported that parents do not want their children to be labeled in any way. Very limited numbers of parents would seek outside help for children's behavioral problems. They consider it a family problem which should be solved by the family members.

Assaf Ullah Khan, a biology teacher in a local private school in Pakistan, St. Joseph High School, along with other teachers, reported that there are some students in classrooms who lack the ability to concentrate, who are hyperactive and impulsive. He also reported that more and more parents are complaining about their children's hyperactivity. However, he also reported that these problems are not very prevalent. Teachers and parents are still in control of the situations and are able to handle behavior problems.

Seemin Shaheen Kark, a psychology professor at a government college for women, a branch of Punjab University, shared a syllabus for their clinical psychology program. ADHD was not a part of the training material at this point of time.

All interviewees from Pakistan agreed that although many students have some behavioral problems, the majority of children still "mind their teacher, and have respect for authority." They do not believe that these behaviors are the result of any neurological problems but how children are being reared. One administrator who is graduate of an American university, expressed her concern about the change which is affecting Pakistani culture at the present time. She reported that the behavioral problems in schools and homes have a relationship with the socioeconomic status of the family.

She claims that in her experience, upper class families, especially, the ones who have western influence, are experiencing difficulty in controlling their children's behavior. She also reported that the behavioral problems were more seen in upper class families than poor families. Children from poor families usually end up working and supporting their families. They have more self-control, ability to self-regulate, and a sense of responsibility. Interestingly, this is quite different from the finding in America, where low socioeconomic status is often correlated to behavioral problems. She, along with others, contends that the lack of family structure, the absence of the father due to work (many fathers leave the country to support their families while families stay behind), mother's employment, and divorce are factors creating unrest in children and in turn, behavior disorders are surfacing in children.

Kanawha county, West Virginia

Data Collection

Nine hundred forty-eight surveys were mailed through the United States postal service to school employees of Kanawha County, in West Virginia. Each mailing contained a cover letter which briefly explained the purpose of the survey, a two-page questionnaire, and a postage-paid pre-addressed return envelope. Responses came immediately.

Type of Schools

All of the survey respondents were employed in public elementary schools for children in kindergarten through grade six. No mailings were sent to private or parochial schools in the county.

Respondents

One-hundred forty-eight persons responded. The overwhelming majority of teachers who answered the survey questions were female (94%). The males who participated had teaching experience which ranged from a low of 10 years to a high of 28 years, while that for the females ranged from 3 to 44 years. The average number of years for all teachers was 18.7 years.

Four of the surveys were returned by reading teachers who indicated that they taught small groups of children in settings that would not be considered typical classrooms. Therefore, they did not respond to the form where numbers were asked. However, they did offer suggestions on page two of the survey which asked for their opinion regarding interventions, training, causes, and labeling.

Two school employees were librarians, while the remaining were classroom teachers. The survey did not ask for the level taught, but kindergarten teachers were apt to indicate their level, stating that many of the behavior indicators were age-appropriate, or typical behaviors of their youngsters.

School Settings

Most of the teachers (49%) worked in suburban communities. Twenty-eight percent described their school settings as "urban," while twenty-two percent worked in rural areas.

Typical Class Size

The smallest class enrollment was ten, and the largest was 30. However, the typical classroom contained twenty-two students. The total number of students for the teachers interviewed in this study was 2,488.

Answers to Survey

Educators answered questions regarding children who exhibit behaviors characteristic of attention deficit disorders. All the returned surveys included comments, with the exception of one early childhood teacher who stated that the questions were not applicable to kindergarten. The following information restates the questions, and presents a summary of the responses.

Q # 1 On the average, how many children in your classroom exhibit the following behaviors?

The average percentage of American children cited as exhibiting inattentive behaviors was 27%, while teachers reported ^{inattentive} ~~27~~¹⁷ 1% of their students as demonstrating behaviors related to hyperactivity.

Q # 2. How do you handle (treat) children who exhibit behavior mentioned in question #1?

A few of the respondents (7) presented general answers such as "with patience, firmness and consistency," "with patience and humor," "by structure and consistency," or "limiting distractions in the classroom." One stated that it "depends on the child and what s/he is doing," while another would "ask the counselor to observe" the child. A unique response was "no differently than I would a child who does not exhibit these behaviors. If we expect less, then what we receive is less."

The majority of comments included multiple answers from each teacher. Although some of the concepts are overlapping, they are presented separately into categories for examination, in descending order by quantity.

Modification of Teaching Strategies

Teachers wrote of changing their techniques. They would keep their voices calm, place a hand on the shoulder of a student, give non-verbal cues to redirect attention, use proximity control, play soothing music, provide prioritized seating (close to the teacher and away from distractions), tap on a desk, provide ample wait time, or stop and remain silent until all students were attending fully. Other strategies noted included interjecting students' names into the instructional scenerio, and reteaching the material. Additionally, teachers would provide more one-on-one instruction for these students, and provide more "one-step instruction" to insure clarity and understanding. "I stop the lesson and utilize 'pinpointing' (have a student demonstrate the correct details to other students). I also break the skill down into parts and stress only one part during the lesson," wrote one teacher. Several suggested the cooperative group approach.

Although the alterations suggest flexibility on the teachers' actions, the educators often stated that they would maintain a "strict routine." Stated one: "ADHD youngsters need a very structured environment. However, they also need positive reinforcement because of very fragile self-esteem(s)." Another wrote: "Since this applies to the majority of my class, I try to adhere to a strict routine." From another is the advice: "Provide a secure environment with much structure. Try to stick to a routine."

Before responding to a child's behavior in a special manner, a few indicated that they first "monitor to see if this is an isolated incident." One respondent noted that "Accommodations are made and training techniques are taught/used but ABSOLUTELY NO EXCUSES are accepted

Behavior Modification

Teachers often supplied details of their classroom or school-wide discipline policy which was implemented. Plans addressed the concise statement of rules, and systematic use of warnings, consequences for inappropriate behavior, and rewards for desired behaviors. "We use a discipline policy utilizing 'Behavior Manner' charts weekly and daily. If children maintain good behavior, follow rules set in the classroom and hand assigned materials in on time, they get a daily sticker. Otherwise, 'Oops' or violation slips are sent home notifying parents of inappropriate behavior, lack of work or attention. Incentives are used as well," explained one respondent. Another wrote: "The entire school has a card system. Each child who stays on (a) green (card) all day receives a 'Super Day Certificate' at the end of the day. If a child breaks one of the classroom rules, he/she pulls a card and is now on yellow which is a warning.

The next infraction, the student pulls a card to red which means 10 minutes off the break. The final card is blue and the child is removed to another room for break and a 'Blue Card Form' is sent home to be signed by a parent or guardian ... In my room, after a student accumulates ten Super Day Certificates, he/she can select one item from a box of trinkets." For some, an individual behavioral contract is designed. Each outline implied what one instructor wrote: "Begin each day anew, giving them the chance to begin again."

Conference With Parent and/or Counselor

In addition to special meetings with parents and/or counselors, teachers wrote of the need to develop and maintain on-going communication with families. Wrote one: "I keep in constant contact with parents (guardians) through student agendas." Others make frequent telephone calls, send notes that are to be signed and returned, and invite parents to visit the classroom. Another stated that she worked "with the parent on doing some of the same (behavior modification charts) at home with the child" as were used in the classroom.

Praise Child for Appropriate Behavior

Certainly a component of a behavior management program, "praise" is noted separately because it was indicated on surveys often in the absence of a clearly defined system. In addition to verbal praise, teachers noted giving smiles, hugs, links to "success chains," special computer time, and using other "incentives for carefully completed work." To reinforce desired behavior, praise was often directed toward other children as a modeling strategy for the inattentive one.

Teach Child Strategies For Self Regulation

According to the surveys, youngsters are directly taught ways to check and redirect their own behavior. Teachers show children how to organize materials in their backpacks and desks, and how to use a checklist to goal set. They are taught ways to recognize drifting, and how to seek assistance from a peer. Assignment books are required and checked, and students are allowed to stand by their desks while working when they feel more comfortable doing so. Additionally, students are taught how to proofread their work, and are reinforced for careful first editions. One teacher wrote, "I ... ask students to check over their work and to write me a brief note on the back stating they had checked their work. They get a bonus point if no careless mistakes are made." Another noted, "I remind them verbally and work out a cue system to help them monitor themselves."

Time Out

Nineteen of the twenty teachers who cited time-out as a method, referred to a brief period within the classroom where students were required to sit out of regular activities. The exception arranged time-out in another classroom at the school.

Alter Work Time-lines

All indicated that they would have students redo unacceptable work. This was viewed not as a punishment, but rather as a "second chance" for students to be fairly evaluated. A male teacher wrote that he would "Restate instructions," then "allow students the opportunity to redo assignments following editing procedures." Others would allow extra time for students to

complete work, or limit the amount of the assignments. "Sometimes if a grade is low the first time, I ask the student to correct and return or to do the paper over for a better grade," stated one teacher.

Restate/remind Child of Rules

Before responding to a child with a consequence (or warning), fifteen teachers indicated that they "go over the rules again," reminding students of current expectations for behavior.

Increase Active Learning Experiences

There is a deliberate plan to keep the instructional activities "short and varied," and to allow for much physical activity or "wiggle time" as one described it. Target children are often given errands to do that allow mobility in the room. In addition, manipulatives are included in a variety of curricular areas.

Conference with Child

Eleven teachers stated that they would hold a private discussion with the child, explain the problem ("bring it to their attention") and present suggestions (e.g. "Insist on small tasks accomplished"). For a child who interrupted with a response, one teacher would "justify the child's answer," but later "also discuss the rudeness of interrupting."

Ignore the Behavior

"It depends on the situation. I have to be tolerant of some environmental factors," wrote one. Rather than confronting or addressing the behavior directly, one of the eight who responded in this manner stated that she would redirect the child's attention

Monitor student's Work carefully

Four teachers explained that they take particular pains to evaluate the quality of the activity sheets returned by their most active students. These students were more apt to turn in incomplete work, or assignments which were completed without careful attention to detail.

Provide Special Area For Concentration

Different than time-out, one teacher provided a special place where students were allowed to work without the typical distractions.

Give Medication

Suspend from School

Of all the respondents from Kanawha County, only one each stated that s/he would give the child medication, or suspend the child from school who exhibited the behaviors identified in the survey.

Q # 3 Do you refer these children for any type of testing by a psychologist?

Twenty-three percent of the respondents replied that they would not pursue testing. Some stated that a medical evaluation should occur first, including a check of the child's hearing and vision. Others noted "only if the behaviors were extreme and consistent." "Not at the kindergarten level." "Not at the first grade level. Usually, (the student does) not place and can't be retested for a period of time." A couple indicated that they were either "not allowed by the principal" or "discouraged" to do so.

The seventy-three percent who responded with a "yes" added conditions. "Only if a disability is suspected." "If it appears that the child is learning disabled and (functioning) well

below grade level." "Only if academic performance is affected severely." Or "after all else fails and parents refuse to pursue an evaluation on their own." "Only if the student is distracting other learners excessively." Some of the responses indicated developmental considerations: "We usually wait until second grade since immaturity and ADD characteristics are so related." Other yes responses clarified the order of referral: "First we have an SAT (School Assistance Team) meeting." Another consulted the school counselor first, while a third reported referring parents to a pediatrician for a diagnosis.

Q # 4. How would you label a child who would demonstrate these behaviors on a regular basis?

Fourty-three percent identified such children as ADD or ADHD. Fifteen percent would not label. One wrote "I try to focus on their strengths and try to help them overcome their problems. All children are different and learn in different ways." Eleven percent called the children "hyperactive." Nearly five percent used the term "immature." Four percent called the children either "behavior disordered" or "undisciplined." Three percent cited "inattentive, not focused or disorganized." Two percent would "base the label on the test results." One percent stated "energetic or fidgety." Other terms or phrases used with a frequency of less than one percent include the following: "bright but distracted," "careless and impulsive," "low functioning," "special," "deficient in perceptual motor skills," "Other Health Impaired," "motivated," "anxious," "a hands-on-learner," "emotionally preoccupied," "learning disabled," "active," "untrained," "out of control," "a pain in the rear," and finally "a child of today's society."

Q # 5. Are you familiar with the term Attention Deficit Hyperactivity Disorders (ADHD)?

All of the Kanawha County educators who returned the surveys had heard of the term. The response was one-hundred percent in the affirmative.

Q # 6. How much knowledge do you have about Attention Deficit Disorders (ADHD)?

A little	18%
Some/enough	36%
A lot	28%

Many of the individuals who indicated that they knew enough about ADHD volunteered information. "I have it myself." "Two of my sons have it." Selected others had a daughter, stepson, nephew, or niece. "In my daughter's case, my husband was an overly-active child and has always been very forgetful and disorganized, but has a Master's + 45." Seventeen percent mentioned that much of the information gained was on their own: reading journal articles, on-the-job training, picked up from a psychologist, from specialists, guest speakers or from a principal.

Q # 7. Have you received any training to handle children with Attention Deficit Disorders?

Twenty-eight percent had no formal training, while seventy-two percent did have training. The amount of training ranged from a one day seminar or three hour inservice to a few with extensive (college courses) backgrounds. Two respondents noted that they have presented workshops on the subject.

Q# 8. What do you think is the cause or source of Attention Deficit Hyperactivity Disorders?

This final question generated a host of responses. Many used the back of the form to

explain their views. Ninety-six percent cited multiple causes, while 4% had a single source answer. Additionally, only 4% had no answers here. "God only knows," wrote one. Or "I wish I knew." One did not answer because she was "not knowledgeable enough" while another didn't "have research to support" his suspicions.

Most (26%) felt that genetics and poor parenting (23%) were key factors for ADHD. Indicators for classification as genetics include heredity, hormonal imbalances, chemical variations in the individual, neurological differences ("misfiring of brain" or "loose wiring from birth on" or "It runs in families. "). Much was said about parenting. A common expression was that there were a few *true* cases (biologically determined) of ADD or ADHD, but many diagnosed as such were simply undisciplined or improperly disciplined by their parents. Unstable home lives or inconsistency was cited. One respondent noted the rise in single-parent homes where children spend part of the time with one parent who has one set of rules, then a significant amount of time with another parent who operates with a different set of guidelines.

Absentee parents are named: "Parents not home enough to (serve) as role models and to calm students when in that extreme frenzy." A kindergarten teacher espoused: "To my understanding, 'true' ADHD is a problem in the brain and that (occurs in) a very small percentage (approximately 2%) of the population... However, it is my personal belief that a large number of children are 'labeled' ADHD and medicated as a means of control and as an excuse for behavior. The number of children in my school alone that are being medicated at this time is 6.8% of our school population. Too many doctors hand out medication and letters to the

Social Security Administration without medical tests to show true ADHD. It was my understanding a brain scan (eeg) needed to be done for this diagnosis. It's become too easy to make excuses for behavior. I've only had a few truly ADHD children in my career - most children just need discipline and behavior modification. I have a true ADHD child this year but the parent and I have worked very closely and the Early Intervention specialist helped out, too. He is medicated at this time and it has totally changed his ability to focus. I believe this has become a 'catch-all' for children with poor behavior due largely to poor parenting skills, single parent homes and a break down of the family unit."

Society itself, or the child's learning environment was cited 12% of the time. Stimulation overload from television and video games or "technology in general" were indicated. Some children simply have not been taught to sit and listen attentively, or "how to occupy their time." Some stated that ADHD characteristics were learned behaviors which resulted from the "lack of a structured environment."

Ten percent of the respondents believed that drug and/or alcohol abuse by the parents could be faulted. Eight percent blamed poor nutrition or diet of the child, including too many sweets or caffeine. Nearly 6% (5.76%) think that the prenatal habits of the mother precipitated ADHD in their offspring. One percent cited allergies to food as possible contributing factors.

Less than one percent mentioned the following factors: environmental toxins, the incentive of SSI checks, birth injuries, physical or emotional abuse, undiagnosed learning disabilities, emotional problems, asthma medication, stress, depression, poor health, different learning styles, speech and language disorders, physical limitations, or attitude (when education and academics are not considered important).

COMPARISON OF DEMOGRAPHICS

	USA	PAKISTAN
Type of schools	All Public	Public and Private
Number of surveys mailed	900	100
Number of surveys received	148	79
Male respondents	6%	35%
Number of female respondents	94%	65%
Average years of experience	18.7 years	Public 16 years Public 6 years
School setting	49 % suburban, 28% urban and 22 % rural	60% urban and 40% rural

COMPARISON OF DATA

NUMERICAL COMPARISON OF TEACHERS' RESPONSES TO THE SURVEY

QUESTION # 1 On the average, how many children in your classroom exhibit behaviors
identical to AD/HD?

	USA	PAKISTAN	
		PUBLIC	PRIVATE
Average number of children exhibited Inattentiveness	22%	18%	17% 15%
Average no. of children exhibiting hyperactivity	17%	16%	15% 18%
Out of the total number of student taught, percentage children behaviors identical to A DHD	39%	34%(public and private)	

NUMERICAL DATA

ADHD - CROSS-CULTURAL INVESTIGATION

BEHAVIOR INDICATORS	Percentage of student exhibiting ADHD behaviors			
	Private Pakistan	Public Pakistan	Pak.	USA
INATTENTIVENESS				
A. Often fails to give close attention to details or makes careless mistakes in schoolwork.	17%	24%	21%	38%
B. Often has difficulty sustaining attention in tasks or play activities.	23%	18%	21%	27%
C. Often does not seem to listen to what is being said to him or her.	9%	12%	11%	28%
D. Often does not follow through on instruction and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand.	9%	15%	12%	23%
E. Often has difficulties organizing task and activities.	13%	18%	16%	27%
F. Often avoids, expresses reluctance about, or has difficulty engaging in tasks that requires sustained mental effort (such as schoolwork or homework)	12%	21%	17%	25%

G. Often loses things necessary for tasks or activities (e.g. school assignments, pencil, books, tools, or toys)	14%	18%	16%	24%
H. Is often easily distracted by extraneous stimuli.	24%	22%	23%	31%
I. Often forgetful in daily activities.	10%	14%	12%	22%
HYPERACTIVITY				
J. Often fidgets with hands or feet or squirms in seat.	13%	14%	14%	28%
K. Leaves seat in classroom or in other situations in which remaining seated is expected.	9%	16%	13%	20%
L. Often runs about or climb excessively in situations where it is inappropriate (in adolescent or adults, may be limited to subjective feelings or restlessness).	10%	16%	13%	13%
M. Often has difficulty playing or engaging in leisure activities quietly.	18%	11%	15%	20%
N. Is always "on the go" or acts as if "driven by a motor".	15%	12%	14%	16%
O. Often talks excessively.	15%	15%	15%	24%
P. Often blurts out answers to questions before the questions have been completed.	22%	17%	19.5%	23%
Q. Often has difficulty waiting in lines or awaiting turn in games or group situation.	26%	19%	23%	23%

R. Often interrupts or intrudes on others) e.g., butts into others' conversations or games)	31%	17%	24%	25%

NUMERICAL RESPONSES TO CHARACTERISTICS: RESULTS OF DATA ANALYSIS

A statistical analysis was done first to compare the Pakistani public and private sample. To do this, a statistician compared the 18 criteria percentages, and determined which was more. For example, for behavior A, the public percentage was 23.65, and the private, 16.92. Since the first was higher, this behavior was given a +. For the second, the private percentage was higher, so it got a -. Using a test called the sign test, the number of +'s and -'s were compared to determine if there was a significant result. There were a total of 11 +'s, and 7 -'s, which suggests no significant difference between the Pakistani public and private schools. Another, more sensitive test was used, called a correlated t-test. It also showed no significant difference between the samples. Given that the Pakistani private and public samples showed no difference, the samples were combined into one to compare to the American percentages.

When checking characteristics of students, 17% of the Pakistani children were cited for behaviors classified by the DSM IV scale as related to inattention (A - I). Twenty-seven percent of the American students were cited in comparison. All 9 behaviors were reported as being more common in the American sample than the Pakistani sample. This is significant at the .01 level meaning that there is less than a 1 in 100 chance that such a result would happen by mere chance. For hyperactive behaviors (J- R), approximately 16% of the students were rated from Pakistan, while 21% of the students were rated from the United States. A chi square test of independence was used, to determine if being of one nationality or the other significantly affects one's likelihood of judging a child's behavior as AD/HD. Since 18 such tests were performed, a measure was taken to offset the possibility that some of the tests were coming out

significant simply because so many tests were done. A Bonferroni correction was performed, with the statistician dividing the significance level by the number of tests performed. Significance was set at .001. All hyperactive behaviors except L and Q were found to be significantly different even at .001 with the correction. Behavior L was "often runs about or climbs excessively in situations where it is inappropriate (in adolescents or adults, may be limited to subjective feelings or restlessness)." Behavior L was not significant at all ($p > .09$, meaning there was at least a 9% possibility that this could happen by chance, well above the minimum 5%). Behavior Q was described as "often has difficulty waiting in lines or awaiting turn in games or group situations."

Out of total numbers of students taught, approximately 17% of those from Pakistan were noticed for the special behaviors studied in this survey, while 24% of the American students were noticed. The two figures are significantly different.

Descriptive Indicators: A Comparison

An examination of the responses to the descriptive section of the questionnaire revealed a number of differences and similarities in the perceptions and responses of educators from the two countries. When asked to convey their methods of responding to children who exhibit attention problems and hyperactive behaviors, teachers from the United States were more likely to respond with concrete strategies which reflected teaching methods, while educators from Pakistan typically replied with references to their attitudes concerning the children: with "patience and love, encouragement, affection" and the like. The orientation of the two groups was different.

Although reluctantly, the majority of American teachers have referred such children for formal testing, usually citing specific procedural steps to follow in the school system. Ninety-five percent of the Pakistani teachers, however, have not made formal referrals regarding the children. Many added that they would maintain open communication lines with parents, and 5% stated that no such referral services were available.

Regarding labeling, both groups listed a number of similar adjectives they would use to describe children. Adjectives from the Pakistan group which were unique to all respondents included "playful," "mischievous," and "smart." Only the American group cited "ADD or AD/HD" or another official label such as "behavior disordered" or "learning disabled." The overwhelming majority of the Pakistani respondents (67%) were not familiar with the term ADD/AD/HD, in contrast to 100% of the teachers from the United States who were familiar.

In likely concert with the lack of familiarity with the AD/HD term, none of the Pakistani teachers self-reported "strong knowledge" in the area. Those who were familiar felt that their knowledge level was "not very much." Conversely, the common response of American teachers was that they had "enough" knowledge about such children. Some (28%) even felt that they had "a lot" of knowledge, citing familiarity through personal experience, family members, and formal training.

Poor parenting and biology were cited by the American group as the primary sources of Attention Deficit Hyperactivity Disorders. The Pakistani educators also expressed beliefs that poor parenting was a primary cause. The biological basis was not cited with similar frequency,

however. Instead, other environmental effects were indicated such as culture, economics, and poor teaching. Personal/emotional factors such as personality traits, poor social relationships (i.e. lacking friendships), and feeling pressured to achieve came from Lahore District.

COMPARATIVE ANALYSIS

Population and Demographics

All of the persons completing the survey in Pakistan and in America were classroom teachers. Ninety percent of those from Pakistan were employed in public school settings, while the same was true for all of the respondents living in West Virginia. The majority in both countries also were female teachers: 94% of the 148 respondents from West Virginia, and 65% of the 72 respondents from Lahore District. In terms of years experience in the classroom, the average was 18.7 for the Americans and 16.6* for the Pakistanis.

School settings varied. Twenty-eight percent of the teachers in West Virginia indicated that their schools were in urban settings, compared to 60% of Pakistani teachers whose schools were in urban areas. Forty-nine percent of the West Virginia classrooms were set in suburban areas (none in suburbs for Pakistan); and 22% were in rural areas in West Virginia compared to 40% rural areas for schools represented from Pakistan,

Identification of Children

Both groups of teachers identified children who demonstrated some of the behaviors on the rating scale for Attention Deficit Hyperactivity Disorders, although only 32% of the Pakistani educators were familiar with the term. Teachers in West Virginia were not only familiar with the term (100%), but 96% had some degree of training on the subject. Conversely, 7% of those

educators from Pakistan had some training on ADHD. It is not surprising, then, to note that 3% of the Pakistani teachers said they would refer such a child for testing, compared to 73% of the American teachers who included that response as one of the considerations.

Teachers from Pakistan identified children who exhibited behaviors associated with Attention Deficit Disorders in fewer instances than those from the United States. In regards to inattentiveness, 17% of the children from Lahore District were accounted, compared to 27% of the children from West Virginia. Sixteen percent of the children from Lahore District were linked to survey questions related to hyperactivity, while 21% of those from West Virginia were indicated. Including both public and private school children, a total of 34% of the children from Pakistan were identified as having some of the behaviors associated with ADHD. In comparison of total figures, 24% of all the children from West Virginia were identified by their teachers as having such behaviors.

Interventions

Although both sets of teachers cited a number of instructional strategies which would be employed with a child having such behaviors, the point of divergence came with three indicators.

Mentioned by American teachers, but never presented by those from Pakistan, were the options of a) referring a child for testing, b) giving medication, or c) suspending a child from school. It is noteworthy that only one teacher mentioned the medication, and only one mentioned suspension.

CONCLUSION AND DISCUSSION

This study found that students from the United States were more likely to be identified as having symptoms of attention deficit disorders than students from Pakistan. If behavioral patterns are universal, one must examine issues in the different cultures which might correlate with the phenomenon of attention deficit disorders. The educational system, parents, and mental health professionals of our country may have oversimplified the complex problems of today's society by naming it ADHD. This does not in any way mean that ADHD is not a real problem but it simply means that we may have forgotten that it is quite normal for children to be more active, more exuberant, less attentive, and more impulsive than adults. As a result, when parents complain about their child's behavior, they are readily given an ADHD questionnaire to complete. As a school psychologist, I have seen that each teacher with an "unruly" child is directed to consult with the school psychologist for an ADHD evaluation. Time after time I have seen teachers and parents pre-labeling children ADHD, only to find out after the evaluation that these children are very normal though somewhat overactive youngsters. I wonder, out of the millions of children labeled ADHD, how many are truly ADHD. Halar (1996), reported that since she started as the Director of Special Education for her district (Meigs Local in Pomeroy, Ohio) in 1986 the number of referrals for ADHD has increased dramatically. I believe that not every other child who is on Ritalin is necessarily a true ADHD individual; every child who is somewhat fidgety is not hyperactive; every child who likes to pay attention to something other than a teacher's lectures is not ADHD; every child who would rather be doing something other than the task at hand is not ADHD; every child who has problems at home and is unable to

concentrate on math problems is not ADHD; every child who is being abused and has no interest in what others are doing in the class is not ADHD. Every child who is hungry and does not care what a teacher is trying to teach, while his stomach has hunger pains is not ADHD, and every child who is acting out to overcome low self-esteem and peer rejection is not ADHD.

Our children today have so many choices. And the messages they receive are often neither clear nor consistent messages. Just imagine the child who has difficulty in sustaining attention, who has problems in controlling impulses. How difficult must it be to respond appropriately to inconsistent messages (from parents, teachers, other adults, print, media sources, etc.) and make right choices when there are so many options from which to choose?

The study also found that teachers from both cultures did identify **some** children with ADHD symptoms. An examination of responses to these children revealed many similar interventions, most of which might be classified under classroom management. However, the more explicit examples of techniques came from the American teachers, while the responses more affective in nature (i.e. attitudinal) came from the Pakistani teachers. Perhaps we ought to look at our attitudes toward young people. As the ecological theory contends, children develop within a complex system of relationships affected by multilevels of environment, from immediate settings of family and school to broad cultural values and programs. As several theories have put emphasis on environment, interaction between parents and children, interaction between teachers and students and have tried to understand children's behavior in the cultural context, we strongly believe that today's culture is responsible for the evidence of more behavior problems including ADHD than ever before. Ross and Ross (1982) propose that consistent cultures will have fewer children diagnosed with hyperactivity, because they minimize individual difference

among children and provide clear and consistent expectations and consequences for behavior that conforms to the expected norms. Inconsistent cultures, by contrast, will have more children diagnosed as hyperactive, because they maximize or stress individual differences and provide ambiguous expectations and consequences to children regarding appropriate conduct. Inconsistent cultures usually tolerate deviant behavior to a greater degree and then these deviant behaviors become more frequent and more pronounced.

This study supports these theories by demonstrating that at least one culture which provides children with more consistent messages of expected behavior than the U.S. sample, has less behavior problems including ADHD. At the Pakistani schools, when the teachers stepped into the classroom, the students still stood up to greet them. Teachers are considered as important as parents. The children are strongly encouraged to respect their teachers in all circumstances. These practices create a sense of responsibility in every one. Children are taught to be responsible to adults and adults are responsible for children. The observation may have been made in American schools a generation ago.

The third finding from this research was that teachers from both cultures had a variety of suggestions regarding the causes of ADHD. A recurring idea was parenting practices. Who is at risk of developing ADHD? These researchers believe that children who are being raised in the culture which sends inconsistent, ambiguous, unrealistic expectations and consequences to children regarding appropriate conduct are at risk of being so labeled. Children with poor self-control. Dr. Russell Barkley (1995) suggests that the phenomenon we call ADHD is a disturbance in the child's ability to use self-control with regard to the future. He says that ADHD is a disorder of self-control, willpower, and organizing and directing of behavior towards the future. Self-control, therefore, is very crucial in developing abilities to organize and plan. It is

also directly dependent on how much control we have over our impulses. It is obvious that when inconsistent cultures become tolerant of deviant behavior, children begin to lose the ability to control their impulses. Lack in the ability to control self leads to severity and persistence of ADHD and deviant behavior. There have been millions of books published in United States on childrearing practices. Nearly all of them talk about the importance of being consistent in disciplining children. The key to successful parenting is consistency in messages children receive from all institutions of society, consistency in giving rewards for good behavior, consistency in using consequences, and consistency in providing loving care and a stable home environment.

Parental characteristics have been noted to be associated with ADHD in children. Studies in this area imply that parents with depression, alcoholism, conduct disorder and antisocial behavior may be more likely to have children with ADHD (Cantwell, 1975; Morrison and Stewart, 1973a). Many studies suggested factors that are protective against the development of ADHD or its persistence from early childhood to school age. These include higher maternal education, better infant health, higher cognitive ability, and greater family stability. In Pakistani culture, family stability is yet a very important factor which may be a protective element against the development of ADHD or its persistence from early childhood to school age. Also, in Pakistan, alcohol is not legal. As a result there are fewer chances that mothers are alcoholics, or place their children at risk for alcohol-related behavior problems.

Bronfenbrenner's ecological theory discusses the connection among home, school, neighborhood, and day care centers that foster children's development. The values, laws and customs of a particular culture are considered important in his theory. So in his view "It takes a village to raise a child." Vygotsky (1934/1987) talks about the connection between culture and

development. His sociocultural theory focuses on how culture - the values, beliefs, customs, and skills of social group is transmitted to the next generation. According to Vygotsky, social interaction - in particular, cooperative dialogue between children and more knowledgeable members of society is necessary for children to acquire the ways of thinking and behaving that make up a community culture (Wertsch and Tutviste, 1992). Vygotsky believes that adults help children master culturally meaningful activities and the communication between them becomes part of children's thinking. Once children internalize the essential feature of these dialogues, they can use the language within them to guide their actions and accomplish skills on their own (Berk, 1992). For this study, it means that if parents and adults are communicating to their children how to control their impulses, are teaching them self control, responsibilities, respect for adults, and providing stability, then we might have a smaller percentage of children with ADHD, in line with other cultures.

Dendy (1995) contends that although researchers and medical experts have been leaning towards the biological basis for ADD, it does not mean that having underlying biochemical problems makes a child totally at the mercy of chemicals in his/her brain. Nor does it mean that the child is powerless to control his life or impulses. It does mean, however, that he will have to work harder to pay attention, obey his parents, and complete chores and schoolwork.

Limitations of the Study

This study was limited to one county in one state of America, and was compared to one district in Pakistan. Similar studies involving a broader range of students and teachers might yield different results. Also, there is often the concern that the teachers motivated to complete the survey were ones with atypical experiences. They may not represent most accurately the majority of the teachers in their area. A higher yield of return would generate more confidence

in the results.

Future Research Needed

A similar survey with other cultures would shed light regarding the incidence of ADD on a broader based international scale. The question remains: How can one become an empowered parent or teacher in a culture marked with inconsistent messages? Numerous programs and books are available which tout success for establishing and maintaining a well-disciplined environment. It is felt that the system in the American educational program falls short in not providing mandates for all its schools in a county, or in all the counties within a state. Each teacher must have a clearly outlined strategy for responding to his/her students' behavior. The school wide discipline plan is in print for all the county schools. Perhaps a careful self-examination of the plan is necessary to reveal the effectiveness of the plan. Are there sufficient methods explained for preventing undesirable behavior? Is there a system for rewarding students for complying and for punishing for non-compliance? Have all the teachers in the building "bought into" the plan? Are the students and parents well informed regarding the plan?

Perhaps the high incidence of children with ADHD symptoms in our society is an unavoidable consequence of living in a culture which encourages free expression and resists mandates such as a national curriculum. Further research is necessary for professionals to voice with confidence, the causes and the correction of this phenomenon.

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